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*Ali Makoui*

Ali Makoui

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application for:

Ramin Shahidi

Serial No.: 10/610,960

Filing Date: 06/30/2003

For: METHODS AND  
APPARATUSES FOR  
MAINTAINING A  
TRAJECTORY IN STEROTAXI  
FOR TRACKING A TARGET  
INSIDE A BODY

Examiner: Eleni M. Mantis Mercader

Group Art Unit: 3737

**TRANSMITTAL LETTER FOR RESPONSE TO AN OFFICE ACTION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Examiner:

In complete response to the Office Action dated 03/22/2005, attached please find:

1. A Petition for Extension of Time;
2. An Amendment and Response to the Office Action;
3. Copy of Office Action for related application;
4. A Credit Card Payment Form; and
5. A Return Receipt Post Card.


The fee has been calculated as follows:

FOR	NUMBER	NUMBER OVER ALLOTMENT	RATE	CALCULATIONS
ADDED CLAIMS	*	*	x \$50.00	\$*
ADDED INDEPENDENT CLAIMS	*	*	x \$200.00	\$*
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$360.00	\$*
<u>3</u> MONTH PETITION FOR EXTENSION FOR REPLY :				\$1020.00
Total from Above				\$1020.00
Reduction by 1/2 for filing by small entity (Note 37 C.F.R. §§ 1.9, 1.27, 1.28). The Applicant hereby states that it qualifies as a small entity under 37 CFR 1.27				\$0.00
				<b>TOTAL = \$1020.00</b>

The Commissioner is hereby authorized to charge any additional fees under 37 C.F.R. §§ 1.16 and 1.17 that may be required by this transmittal and associated documents, or to credit any overpayment to **Deposit Account No. 50-1128**.

Respectfully submitted,

Dated: 9/22/2005

By:   
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# UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/793,828	02/26/2001	Ramin Shahidi	2755-0003.31	2690
22918	7590	02/18/2005		
PERKINS COIE LLP P.O. BOX 2168 MENLO PARK, CA 94026				
EXAMINER MILLER, CARL STUART				
ART UNIT		PAPER NUMBER		
3747				

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/793,828	Applicant(s) SHAHIDI, RAMIN	
	Examiner Carl S. Miller	Art Unit 3747	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2004.
- 2a) ☒ This action is FINAL.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 1-4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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Claims 1-4 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salcudean in view of Chen ('561) and Paltieli.

Salcudean teaches and imaging positioning means which uses a transducer that is moved by a robot arm. The arm can be repositioned continuously by a computer in order to track the movement of a second moving target such as a needle (see column 11, line 39 thru column 12, line 9). The applicant will note that the identified passages teach an embodiment wherein the manual input to the device is either minimized or completely eliminated. Also, a general scan is used to begin the tracking process. Further, the robot arm used to position the transducer is placed on the tissue and the force is monitored to keep it constant. What is missing from Salcudean is the exact method of how the arm is moved to track movement.

Chen teaches that it was known in the art to produce 3-D preliminary scan images using a computer and a series of 2-D images. These images could be produced using an ultrasound device (column 12, lines 9-15). Most importantly, Chen

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teaches the use of patient markers. This type of patient scan is precisely what applicant argues is not found in Salcudean.

Paltieli teaches a transducer imaging device which is placed against tissue in order to create an image used to track a needle or other surgical instrument. The instrument itself is repositioned using a method basically identical to applicant's method. While the transducer is not clearly identified as moving (although this is somewhat unclear since its position is constantly tracked and its coordinates fed into the computer), the program takes into consideration the movement of both devices in order to track the instrument and electronically position the robotic arm of the instrument.

It would have been obvious to modify Salcudean by positioning the robot arm of the imaging transducer as taught by Paltieli because this was known to be an effective method of repositioning any surgical or imaging device in order to aid in tracking a surgical procedure and Salcudean has already taught the need to reposition the transducer during the procedure in order to create the best possible imaging.

Also, it would have been obvious to produce the scans noted by Salcudean as taught by Chen because such scans were obviously well known in the art and the patient markers would have been needed to coordinate the imaging and robotic cam system.

Applicant's arguments filed October 29, 2004 have been fully considered but they are not persuasive. In particular, as noted in the above rejection, the applicant argues that 3-D images produced by preliminary scans of the patient's body were not known to include patient markers.

As Chen clearly shows, this was well known in the art and such markers are probably only absent from the Salcudean disclosure because they were so well known.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl Miller whose telephone number is (571) 272-4849. The examiner can normally be reached on MTWTHF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen, can be reached at 571-272-4856. The fax phone number for the organization where this application or proceeding is assigned is 571-272-4887.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Carl S. Miller  
Primary Examiner